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Published in:
Nursing Informatics 2016

DOI (link to publication from Publisher):
10.3233/978-1-61499-658-3-783

Publication date:
2016

Document Version
Publisher's PDF, also known as Version of record

Nursing Informatics 2016
W. Sermeus et al. (Eds.)

doi:10.3233/978-1-61499-658-3-783

Developing a Framework for Teaching Nursing Informatics Internationally

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Abstract. Information technology systems in healthcare have resulted in transformation of work practices. Nurses need knowledge, skills, judgment and understanding of the importance of informatics from the commencement of their training. This interactive workshop will look at developing a framework for common core content, teaching methodologies and program structures in the integration of nursing informatics in undergraduate programs. The workshop format will provide a forum for international discussion on this serious challenge faced by nursing schools everywhere. The outcome of this workshop will be the development of a framework that may be applied in teaching nursing informatics internationally.

Keywords. Nursing informatics, ICT, health information system, curriculum, undergraduate education

1. Introduction

Healthcare delivery is increasingly dependent on information technology for timely information and effective decision-making. In 2003 McNeil et al conducted a survey of 266 baccalaureate and higher nursing programs in the United States and found approximately half of the programs reported they only require students to have basic computer word processing and email skills, while less than one third of the programs addressed core nursing competencies such as standardized terminologies and telehealth applications. [1] In this workshop we report on the findings of a survey that show less than one third of program faculty was rated competent to teach nursing informatics skills. Nearly 50% of the schools had no future plans or did not know of any plans to offer nursing informatics.

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2. Review of the Literature

In 2015 Madsen, Cummings and Borycki compared bachelor nursing informatics programs in Denmark, Canada and Australia, and reported significant variability in the development, evolution and integration of nursing informatics into undergraduate education. [2] While the informatics curriculum in Denmark is well established at the undergrad level, the comparison showed Canada and Australia are still in early stages. This inquiry was broadened with an informal unpublished survey in the fall of 2015 that included representative universities in 20 countries. As shown in Table 1, of the twelve participants (60%) who responded 10 had a Bachelor of Nursing program but only 3 of those programs had nursing informatics content. When asked if they preferred a stand-alone informatics program to integrating informatics curriculum within an undergraduate nursing program, 55% indicated they preferred integration. Findings of the survey served to further confirm wide differences exist in nursing informatics curriculum development, delivery methodology and integration into basic nursing competencies.

Table 1.

Country	Bachelor of Nursing	Nursing Informatics Program (Bachelor)	Integrated or Stand Alone Informatics program
Australia	Yes	No	Integrated
Canada	Yes	Yes	Stand Alone
China	Yes	Yes	Integrated
Denmark	Yes	Yes	Integrated
Finland	No	No	N/A
Iceland	Yes	No	No
Netherlands	Yes	No	No
Norway	No	No	N/A
Switzerland	Yes	No	No
UK	Yes	No	Integrated
USA - 1	No	No	N/A
USA - 2	Yes	No	Integrated

3. Methods

The workshop will feature roundtable discussions and is organized around specific topics relevant to the expected outcome, for example: nursing informatics content, program structure, challenges/opportunities for implementation, faculty training requirements, etc. Target participants are nursing faculty, clinicians and administrators.

The workshop will be 90-minutes in length and will be organized as follows:

- 2 speakers x 15 minutes each to present workshop objectives, current status findings from the international survey and a discussion framework. (30 minutes)
- 3 Roundtable discussions with first topic areas x 20 minutes (specific questions and responses recorded) (20 minutes)
- 3 Roundtable discussions with second topic areas x 20 minutes (total of 6 topic areas covered) (20 minutes)

- Summary of findings presented by leaders at each table (12 minutes i.e. 6 topics x 2 minutes reporting each) (12 minutes)
- Acknowledgements and determining next steps (5 minutes)
  Total 87 minutes with 3 minutes for Roundtable reset

4. Conclusion

In summary, the international survey substantiated nursing informatics has become a core competency for nurses who are soon to be left behind in today's digital reality. Healthcare records all over the world are being digitalized. This explosion of information technology systems has transformed how nurses will practice in the new workplace. Therefore nurses need knowledge, skills, judgment and understanding of the importance of informatics from the commencement of their training.

Nursing informatics as part of the basic nursing curricula has evolved differently in each country, and even in jurisdictions within those countries. It is apparent nursing generally has not developed a common framework, core content guidelines and core competencies in healthcare informatics. This workshop will serve to explore, on an international level, core content and competencies in an undergraduate nursing informatics program. Participants will assist in the development of a common framework for integrating nursing informatics into existing programs. Important collateral information from the workshop will include lessons learned in overcoming barriers and identifying opportunities for implementation. The workshop will also help identify faculty informatics training requirements and available resources.

References

[1] B. J. McNeil, V. L. Elfrink, S. T. Pierce, Preparing student nurses, faculty and clinicians for 21st century informatics practice: Findings from a national survey of nursing education programs in the United States. *MedInfo* (2004), 903-907.

[2] I. Madsen, E. Cummings, E. Borycki, Current status for teaching information in Denmark, Canada, and Australia, *Stud Health Technol Info* (2015), 216, 856–890.